NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
Kim H. Colson
Director

May 14, 2020

Mr. John Connet, City Manager
City of Hendersonville
145 Fifth Avenue E.
Hendersonville, NC 28792

SUBJECT: Finding of No Significant Impact
City of Hendersonville
Raw Water Intake and Water
Treatment Plant Improvements
Project No. WIF1940

Dear Mr. Connet:

This is to inform you that the Finding of No Significant Impact (FONSI) and the Environmental Assessment have been submitted to the State Clearinghouse. The documents will be advertised for thirty (30) calendar days in the N.C. Environmental Bulletin. Advertising the FONSI is required prior to a local unit of government receiving financial support from the State Revolving Loan program. You will be informed of any significant comment or public objection when the advertisement period is completed.

A copy of the documents is transmitted for your record. The documents should be made available to the public.

If there are any questions, please contact me at (919) 707-9175.

Sincerely,

Jon Risgaard

Jon Risgaard, Chief
State Revolving Fund Section
Division of Water Infrastructure

SCK

Attachment (all cc's)

North Carolina Department of Environmental Quality | Division of Water Infrastructure
512 N. Salisbury Street | 1633 Mail Service Center | Raleigh, North Carolina 27699-1633
919.707.9160

Mr. John Connett, City Manager
City of Hendersonville
Raw Water Intake and Water Treatment Plant Improvements
Project No. WIF1940
April 7, 2020

cc: Joseph Ryan Shy, Black & Veatch Charlotte
Vincent Jude Tomaino, PE (via email)
Bashar Al-Masri (via email)
Mark Hubbard, P.E. (via email)
Jennifer Haynie (via email)
DWQ – ARO
File (ER/EID)

FINDING OF NO SIGNIFICANT IMPACT
AND ENVIRONMENTAL ASSESSMENT

CITY OF HENDERSONVILLE
RAW WATER INTAKE AND WATER TREATMENT PLANT IMPROVEMENTS

RESPONSIBLE AGENCY: NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY

CONTACT: JON RISGAARD, SECTION CHIEF
STATE REVOLVING FUND SECTION
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1633 MAIL SERVICE CENTER
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May 14, 2020

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FINDING OF NO SIGNIFICANT IMPACT

Article I, Chapter 113A of the North Carolina General Statutes requires an action to be subject to the requirements of the North Carolina Environmental Policy Act (NCEPA) if it involves the expenditure of public funds and if a potential impact is anticipated to the environment. The project has been evaluated for compliance with the NCEPA and is determined to be a major agency action, which will affect the environment.

Project Applicant:	City of Hendersonville, North Carolina
Project Description:	The proposed project consists of two components: (1) constructing a new 15 million gallon per day (MGD) raw water intake and pump station to withdraw water from the French Broad River, and (2) increasing the treatment capacity of the City's water treatment plant from 12 MGD to 15 MGD by bringing online an additional dual-media filter.
Project Number:	WIF 1940
Project Cost:	$14,406,480
Clean Water State Revolving Loan Fund:	$14,124,000
Local Funds:	$282,480

The review process indicated that significant adverse environmental impacts should not occur if mitigative measures are implemented, and an environmental impact statement will not be required. The decision was based on information in the Engineering Report and reviews by governmental agencies. The attached Environmental Assessment (EA) supports this action and outlines mitigative measures that must be followed. This Finding of No Significant Impact (FONSI) completes the environmental review record, which is available for inspection at the State Clearinghouse.

No administrative action will be taken on the proposed project for at least 30 days after notification that the FONSI has been published in the North Carolina Environmental Bulletin.

Sincerely,

Jon Risgaard

Jon Risgaard, Section Chief
State Revolving Fund Section
Division of Water Infrastructure

ENVIRONMENTAL ASSESSMENT

A. Proposed Facilities and Actions

The proposed project consists of two components: (1) constructing a new 15 million gallon per day (MGD) raw water intake and pump station to withdraw water from the French Broad River, and (2) increasing the treatment capacity of the City's water treatment plant (WTP) from 12 MGD to 15 MGD by bringing online an additional dual-media filter.

The proposed water intake structure will consist of three bankside channel intakes, each eight feet long with a bar screen opening width of ½ inch. Raw water will be transmitted from the intake to the wet well of the pump station via a 54" buried raw water transmission pipe passing under an unnamed tributary to the French Broad River. The pump station will be a 30-foot by 30-foot structure consisting of three levels: the pump wet wells, the ground floor pipe gallery, and the pump room/operating floor. The pump station will house three vertical turbine pumps. The pump station will transfer raw water to the WTP via an existing 11,500 linear foot 30-inch diameter ductile iron raw water line. Bank stabilization for the intake structure and access point will include sheet piling to provide structural support and rip rap armoring to prevent erosive scouring.

The WTP capacity will be expanded from 12 MGD to 15 MGD by bringing on an additional dual-media filter, which is a concrete basin with an underdrain layer of filter media in two chambers. The plant currently has four dual-media filters online, each with a capacity of processing 3 MGD. The concrete basin for the additional filter has been constructed, but the basin is currently empty. To bring this filter online, filter media, additional piping, and instrumentation will be added.

Funding Status: The estimated total cost for the project is $14,406,480. The City is applying for a Drinking Water State Revolving Fund (DWSRF) loan of $14,124,000. Local funds will cover the loan fees of $282,480.

B. Existing Environment

Topography and Soils. The planned water intake and the WTP are both in the Mountain Physiographic region of North Carolina, specifically the Broad Basins ecoregion, which is drier and has lower elevation and less relief than the more mountainous regions. The project site elevations for the French Broad River raw water intake range from 2,047 to 2,050 feet above mean sea level (MSL). The WTP is approximately 2,086 feet above MSL.

At the French Broad River project site, the dominant soil type is Rosman loam, which has slopes of 0 to 2 percent and is typically found on floodplains and valleys. It is frequently flooded but does not meet hydric criteria.

At the WTP site, the dominant soils are Delanco loam and Kinkora loam. Delanco loam has slopes of 2 to 7 percent and is found in depressions on stream terraces and valleys. It is

occasionally flooded and does not meet hydric criteria. Kinkora loam has slopes of 0 to 2 percent and is found in depressions on stream terraces and valleys. It is occasionally flooded and meets hydric criteria.

Surface Water. The project area is located in the Upper French Broad River subbasin (HUC 06010105. The French Broad River in the project area is designated as Water Supply Watershed IV (WS-IV).

Water Supply. Drinking water provided by the City's WTP has three intakes. Under normal conditions, approximately 12 MGD can be drawing from the main stem of the Mills River, 2.0 MGD can be drawn from the North Fork of the Mills River Reservoir, and 2.5 MGD can be drawn from Bradley Creek.

C. Existing Water Facilities

The City of Hendersonville owns and operates a WTP, located in the Town of Mills River in northern Henderson County. The plant was built in the early 1960s and currently has a design capacity of 12 MGD. Raw water is supplied primarily from the Mills River with additional intakes on Bradley Creek and the North Fork of the Mills River. A raw water line was constructed in 2010 extending from the plant to the proposed French Broad River intake. The plant provides potable water to City of Hendersonville and the majority of Henderson County including the Laurel Park, Fletcher, Mills River, Saluda, and Etowah communities.

D. Need for Proposed Facilities and Actions

The proposed project is needed to provide a supplemental source of raw water for the City to improve the resiliency of the drinking water infrastructure and to meet rising demands for potable water in the Henderson County service areas. The demand for potable drinking water is projected to exceed 80 percent of the existing water source within the next 10 years, and existing water sources have demonstrated sensitivity to effects or drought or otherwise vulnerable conditions that could require temporary suspension of withdrawals.

E. Alternatives Analysis

Alternative 1 – No-Action Alternative: Under the No-Action Alternative, no project would be constructed. The City would continue to use the Mills River watershed as the main water supply. This alternative was rejected because it is expected to have negative economic impacts during periods of drought and an inability to meet future demand.

Alternative 2 – Construct a New Raw Water Intake on the French Broad River (Preferred Alterative): This alternative would include construction of a new raw water intake and pump station on the French Broad River to convey water through an existing raw water line to the City's water treatment plant. The river has adequate capacity to meet demand. This alternative is preferred because it meets the City's anticipated need for potable water demand.

Alternative 3 – Interlocal Agreement with the City of Asheville Water System: This alternative would consist of an interconnection of the water systems of the City of Asheville and City of Hendersonville and would require an interlocal agreement to permit purchase of finished water during periods of drought or other emergency water supply situations. The City of Hendersonville has entered into an interlocal agreement with the City of Asheville for emergency purchase of finished water from the Asheville Mills River Water Treatment Plant. While this interlocal agreement provides for purchase of some finished water, the Asheville plant is currently operated near capacity and is not able to meet the additional 3 MGD needed by the City of Hendersonville. This alternative was rejected because it does not meet the project purpose and need for additional water capacity.

Alternative 4 – Construct Water Supply Wells: This alternative would construct new ground water supply wells in the Hendersonville area to provide additional raw water supply for the City. This alternative was rejected due to limited capacity of supply wells in the geologic area.

F. Environmental Consequences and Mitigative Measures

Topography and Soils: Some topographic changes will be required in the immediate vicinity of the intake structure, including in the floodplain. Modeling results indicate that the impact of these changes will be negligible. The pump station will be constructed such that main floor level and all pumping and electrical equipment will be above the 500-year flood level. Soil loss will be minimized by following a DEQ-approved Erosion and Sediment Control Plan. Appropriate permits will be acquired as needed for work in the floodplain. Secondary and cumulative impacts related to future grown will be minimized through compliance with Executive Order 11988 (Floodplain Management), the National Flood Plain Insurance Program, and local ordinances designed to preserve and maintain the natural floodplain in an undisturbed state to maintain flood storage capacity.

Land Use: The project will have minimal impact on land use for construction of the intake structure. The area surrounding the proposed intake structure is agricultural and will not be impacted by operation of the intake structure. Upgrades to the WTP will be done within the existing plant property with no impacts to land use. Future development will be in accordance with local ordinances and land conservation incentive programs to protect natural lands, wetlands, agricultural lands, forest resources, and sensitive species habitats.

Wetlands: Direct impacts to wetlands are not anticipated from construction of the intake structure or improvements at the WTP. Secondary and Cumulative impacts related to future growth will be minimized through compliance with Executive Order 11990 (Protection of Wetlands), North Carolina Dept. of Environmental Quality (DEQ) and U.S. Army Corps of Engineers permitting requirements, and local conservation incentive programs.

Important Farmlands: Impacts to important farmlands are not anticipated. The proposed intake site and the WTP site do not soils classified as prime farmlands or farmland of statewide

importance. Significant impacts related to future growth will be avoided through farmland protection programs under the Henderson County Land Development code.

Public Lands and Scenic, Recreational, and State Natural Areas: There are no formally designated public lands, scenic, recreational, or state natural in the immediate project area; thus, there will be no direct impacts to these areas. Future development will be in accordance with local ordinances and land conservation incentive programs to protect natural lands, wetlands, agricultural lands, forest resources, and sensitive species habitats.

Cultural Resources: Upon request of the North Carolina State Historic Preservation Office (SHPO), a Phase I archaeological survey was conducted for the proposed raw water intake area. No archaeological resources were identified. In a memorandum dated December 16, 2019 (No. CH 18-2248), SHPO accepted the survey report as final compliance.

Air Quality: No significant impacts to air quality are anticipated. Construction activities will be associated with short-term, localized impacts such as dust and exhaust emissions related to construction activities. These impacts will be minimized through dust reduction measures such as wetting access roads, temporary installation of rock to cover dust, or installation of mulch, and maintaining construction equipment in good working order, including emission controls. Impacts to air quality from future growth are mostly likely to be related to motor vehicles and will be mitigated through current vehicle emissions testing programs. Any new commercial or industrial facilities would be required to comply with existing air quality regulations and permitting requirements.

Noise Levels: No significant permanent noise impacts are anticipated. Temporary noise is expected during construction activities and will be limited to daytime hours and in accordance with local noise ordinances. Construction equipment will be equipped with proper noise attenuation devices such as mufflers and silencers. Noise impacts related to future growth and development will be restricted by local noise ordinances.

Water Resources: No significant impacts to water resources are anticipated. There will be some permanent impacts to the stream bank for construction of the intake structure. Rip rap will be used to stabilize the bank and prevent erosive scouring. Temporary construction impacts such as possible increase in turbidity may occur. Upon completion of construction, the area will be stabilized and turbidity is expected to return to normal levels. An Erosion and Sediment Control plant and Stormwater NPDES permit will be submitted to DEQ for approval prior to construction. Appropriate permits will be obtained from the NC Division of Water Resources and U.S. Army Corps of Engineers. Impacts from future development will be minimized through federal and state regulations as well as City of Hendersonville zoning ordinances and conservation programs that include strict buffer requirements and stormwater management.

Forest Resources: Minor impacts to forest resources are anticipated including tree removal on approximately 0.3 acre at the raw water intake site. Clearing is not required for the WTP improvements. Future development will be in accordance with local ordinances and land conservation incentive programs to protect natural lands, wetlands, agricultural lands, forest resources, and sensitive species habitats.

Shellfish or Fish and Their Habitats: Impacts to shellfish, fish, and their habitats are not expected to be significant. The intake structure will be constructed to avoid trapping fish and aquatic life. An Erosion and Sediment Control plant and Stormwater NPDES permit will be submitted to DEQ for approval prior to construction. Impacts from future development will be minimized through federal and state regulations as well as City of Hendersonville zoning ordinances and conservation programs that include strict buffer requirements and stormwater management. The federally endangered Appalachian elktoe (*Alasmidonta raveneliana*) may occupy the reach of the French Broad River near the proposed intake. To reduce the probability for take of the Appalachian elktoe, the City has agreed to notify the U.S. Fish & Wildlife Service when a construction schedule is determined, and that a survey and animal relocation effort be conducted prior to any instream construction activities. With these measures in place, the U.S. Fish & Wildlife Service believes the probability for take of this species will be insignificant and concurs with a "may affect, not likely to adversely affect" determination.

Wildlife and Natural Vegetation: No significant impacts to wildlife and natural vegetation are expected. Approximately 0.3 acre of vegetation will be cleared for construction of the raw water intake and pump station. Sufficient habitat is available in the surrounding area to support wildlife. No rare terrestrial wildlife species are known to inhabit the project area. Future development will be in accordance with local ordinances and land conservation incentive programs to protect natural lands, wetlands, agricultural lands, forest resources, and sensitive species habitats.

Introduction of Toxic Substances: The project is not expected to introduce toxic substances to the environment. Construction equipment will be monitored to avoid release of toxic substances such as fuels or lubricants. Contractors will be instructed to take precautions to ensure that uncured concreted is not allowed to contact surface waters.

The U.S. Fish and Wildlife Service reviewed the proposed project and concluded that the requirements of Section 7(a)(2) of the Endangered Species Act have been fulfilled (February 20, 2020, Log No. 4-2-19-005). The North Carolina Wildlife Resources Commission, Natural Heritage Program, and DWR Asheville Regional Office concur with the proposed project. The U.S. Army Corps of Engineers provide guidance for permitting and did not object to the project (October 15, 2018 SAW-2010-00198). The North Carolina Department of Natural and Cultural Resources is not aware of historic resources that would be affected by the project (December 16, 2019, CH 18-2248).

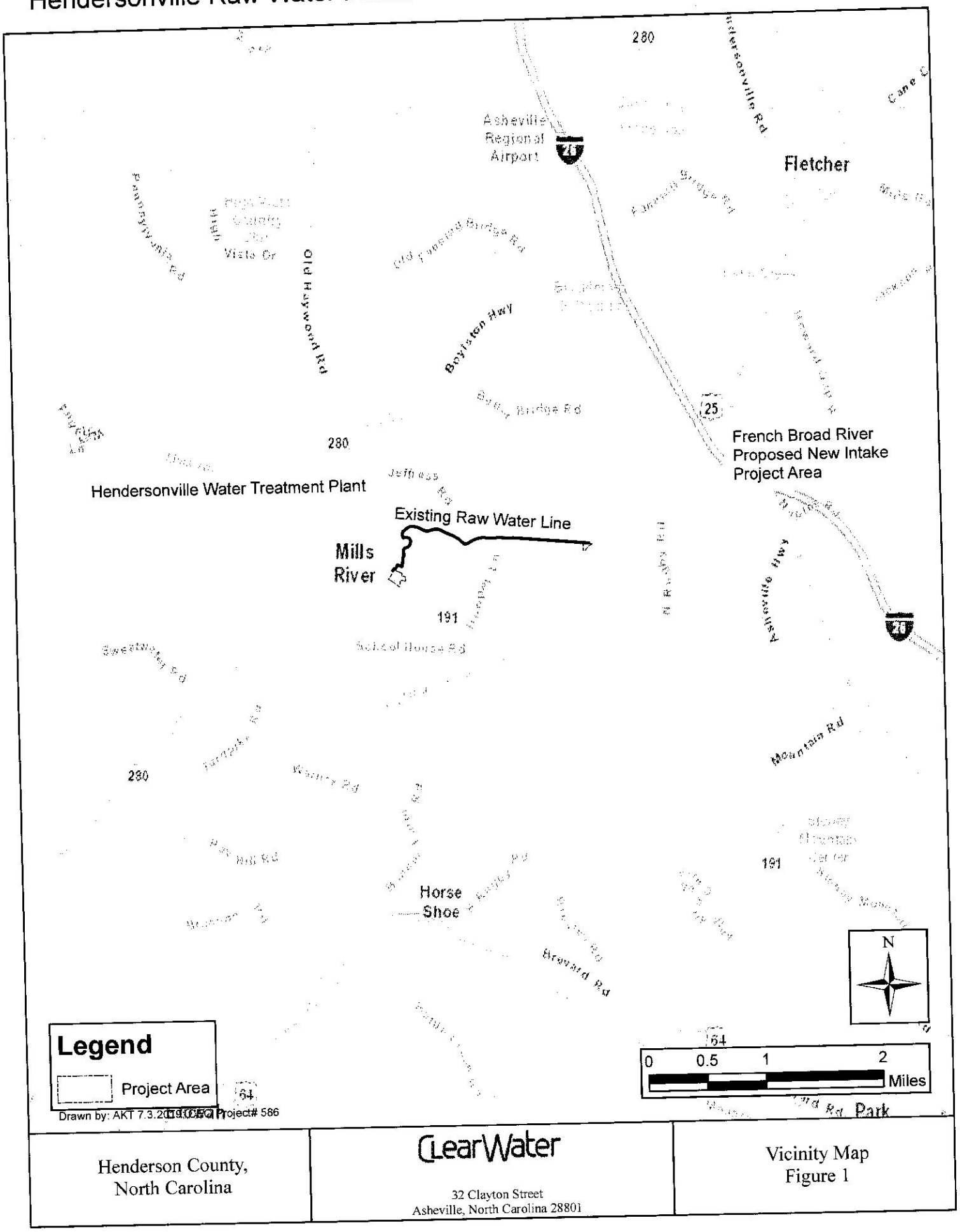
G. Public Participation, Sources Consulted

A public meeting was held on March 5, 2020 including a presentation about the project. There were no comments on the project. The current user charge for a typical residential customer is $52.39 per month for 5,000 gallons of water and sewer service combined. The proposed project is expected to increase rates by approximately 8% to $56.64 for 5,000 gallons.

Sources consulted about this project for information or concurrence included
1) City of Hendersonville

2) Henderson County
3) City of Asheville
4) North Carolina Department of Environmental Quality
   -Wildlife Resources Commission
   -Natural Heritage Program
   -DEQ Asheville Regional Office
   -Division of Air Quality
   -Division of Water Resources
   -Division of Forest Resources
   -Division of Environmental Assistance and Customer Service
   -Division of Waste Management
5) North Carolina Department of Natural and Cultural Resources
6) North Carolina State Clearinghouse
7) North Carolina Department of Public Safety
8) U.S. Fish and Wildlife Service
9) U.S. Army Corps of Engineers

Hendersonville Raw Water Intake and Water Treatment Plant Improvements



Henderson County, North Carolina	ClearWater 32 Clayton Street Asheville, North Carolina 28801	Vicinity Map Figure 1